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With a limited body of literature examining residents' preferences for Extension topic areas, this brief report examined the educational interests of Utah residents. It explores opportunities for future programming based on residents' preferences for topic areas and their information-seeking behaviors. Data were gathered from Utah residents in May 2021 via an online Qualtrics survey (n = 668). Results showed the topics of highest interest to Utah residents were strengthening family relationships, emergency preparedness, mental health, food storage, and healthy couples' relationships. Residents' information-seeking behaviors were somewhat consistent with their interests; residents searched most frequently for information on mental health, strengthening family relationships, nutrition education, financial planning, and healthy couples' relationships. Extension organizations are encouraged to learn more about residents' interests and participation preferences to recruit and retain participants, given changing societal trends.

Keywords: educational interests, Extension, information-seeking behaviors, programming, Utah topics

Introduction

Extension must continue to meet the changing needs of residents to fulfill the land-grant mission (Place et al., 2019). While community-based needs assessments enable responsive programming (Bayer et al., 2020), a focal discussion in Cooperative Extension is steady participant recruitment (e.g., Tiffany, 2017). Internal data at Utah State University Extension shows a persistent decline in direct contacts (or total annual program participants) between 2012 and 2019. During this period, Utah State University Extension expanded programming to address emerging issues such as the opioid epidemic and rural workforce development.

Extension rapidly shifted to virtual program delivery in 2020 due to COVID-19 (Israel et al., 2020). The shift to virtual learning stirred conversations at the state level on priority topic areas, audience engagement, and program coverage. While Utah State University Extension was able to successfully maintain and increase program participation via online programming during COVID-19 (Narine & Meier, 2020), there are ongoing discussions on the strategies and methods to keep audiences engaged in programming post-COVID. Thus, this study sought to understand residents' interests and preferences for information to ensure successful participant recruitment

and engagement. While there is ample literature on learning style preferences (e.g., Bailey et al., 2017), limited research exists on Extension clientele preferences for educational topics.

Purpose and Objectives

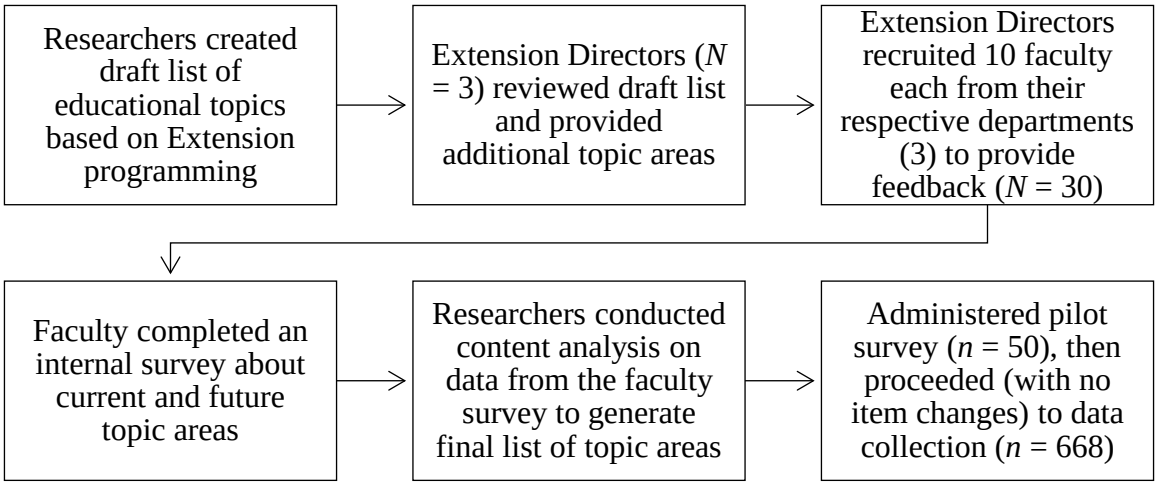
This brief report describes Utah residents' level of interest and information-seeking behaviors for educational topic areas. Objectives were to (a) assess residents' level of interest in educational topic areas by type of residence (urban, suburban, and rural), (b) describe residents' level of interest in topics by age, (c) describe residents' information-seeking behaviors, and (d) describe residents' preferences for participating in educational workshops or courses. Findings can inform the development and implementation of relevant programs that appeal to Utah residents. This study holds implications for Extension's ability to provide relevant programs, maintain participation levels, and attract new audiences given changing societal trends.

Methodology

This study followed a descriptive design (Ary et al., 2014) and relied on primary data from Utah residents. The target population was residents over the age of 18. The sample size was 668 individuals, and data were gathered using a convenience sampling technique. The iterative proportional fitting (or raking) method was used to weight the sample data to reflect target population characteristics. Cohen (2011) described the raking method as a post-stratification procedure for correcting sample weights to reflect known population totals. In this study, sample data were weighted based on age, sex, and county population size using estimated 2019 census data. While the final sample reflects selected population characteristics, it should be noted that a limitation of this study is the use of a convenience sampling strategy. Data collection was facilitated by Qualtrics after the study was deemed exempt by the Utah State University Institutional Review Board. Qualtrics was tasked with recruiting participants from the target population.

A closed-ended questionnaire was used to gather data from the sample. Extension Directors of Utah State University Extension provided feedback at every stage of the questionnaire development process. First, they were asked to review a pre-defined list of topic areas covered by Extension programs in their respective departments. Following this, an internal faculty survey was developed to corroborate and expand upon the existing list of topics. Directors recruited ten faculty each from their respective departments to complete the internal survey (n = 30). The open-ended survey asked faculty to (a) list three major Extension programs they implemented over the past five years, (b) list all topics addressed in each major program, (c) list three innovative programs they plan to implement in the next three years, and (d) list the specific topic areas targeted by each innovative program. Content analysis was used to generate a complete list of topic areas based on responses from the faculty survey. Figure 1 summarizes the questionnaire development process.

Figure 1. Questionnaire Development Process



The final residents' survey consisted of a list of 71 topics related to agriculture, home gardening, food preservation, finance, health and wellbeing, and community development. However, this report did not include specialized agricultural topics (e.g., livestock production, precision agriculture) due to the low number of respondents from the agricultural industry. Excluding agricultural topics, this report includes a list of 47 topics applicable to the general adult population of Utah.

Residents were asked to indicate (a) their level of interest in each topic and (b) how often they self-searched for information on the topic. For interest, response anchors were: *Not Interested* = 1, *Hardly Interested* = 2, *Somewhat Interested* = 3, *Interested* = 4, and *Very Interested* = 5. For information-seeking behaviors, response anchors were: *Never* = 1, *Yearly* = 2, *Monthly* = 3, *Weekly* = 4, and *Daily* = 5. Residents were also asked to indicate their preference for participating in educational workshops or courses. Data were analyzed using descriptive statistics.

A standardized Interest Level (IL) score is shown for each topic. All topic areas were ranked from *Very Interested* to *Not Interested*. The standardized IL scores were calculated based on the frequency distribution of responses as follows: [% Not Interested (1) + % Hardly Interested (2) + % Somewhat Interested (3) + % Interested (4) + % Very Interested (5)] / 100. The scores are ordered like means; however, since each item is an ordinal variable, a standardized IL was preferred over the mean (Narine et al., 2021). IL scores were interpreted as follows; 0 – .20 = *Not Interested*; .21 – .40 = *Hardly Interested*; .41 – .60 = *Somewhat Interested*; .61 – .80 = *Interested*; .81 – 1.00 = *Very Interested*.

This study used a convenience sample, and caution should be taken when generalizing to the population of Utah. The results of this study are based on a weighted sample according to the 2019 population estimates of American Community Survey (ACS) 1-Year Estimates Data

Profiles. Respondents were asked to self-describe their area of residence. Raw data were weighted by county population size as described in the 2019 U.S. Census.

The sample consisted of mostly non-Extension clientele; 89% of respondents (n = 594) have never attended an Extension program or used Extension resources in the past. Therefore, the results of this study are potentially useful for attracting new audiences in Extension.

Findings

Residents' Overall Interest in Topic Areas

Table 1 shows residents' interests in topic areas based on IL scores. The top three topics of interest were strengthening family relationships, emergency preparedness, and mental health. On average, individuals searched for information on these topics monthly. Residents also searched monthly for information on healthy couples' relationships, home gardening, nutrition education, and financial planning.

Table 1. Interest Level and Information-Seeking Behaviors (ISB) for all Topics

Overall Rank	Topic	ISB*	IL#
1	Strengthening family relationships	Monthly	.74
2	Emergency preparedness	Monthly	.71
3	Mental health	Monthly	.70
4	Food storage	Yearly	.69
5	Healthy couples' relationships	Monthly	.67
6	Food safety	Yearly	.66
7	Home gardening	Monthly	.65
8	Nutrition education	Monthly	.64
9	Financial planning	Monthly	.63
10	Food preservation (e.g., canning, freeze-drying)	Yearly	.61
11	Home water conservation	Yearly	.59
11	Financial literacy	Yearly	.59
13	Healthy social media use in families	Yearly	.57
14	Water-efficient landscapes	Yearly	.56
15	Home landscaping	Yearly	.55
16	Nature and outdoor education	Yearly	.52
16	Herbal supplements	Yearly	.52
18	Chronic disease prevention	Yearly	.50
18	Remote working skills (i.e., working from home)	Yearly	.50
20	Remote job opportunities	Yearly	.49
21	Estate planning	Yearly	.48
22	Home buyer education	Yearly	.46
22	Community volunteering	Yearly	.46
24	Career development	Yearly	.44
25	Electric vehicles	Yearly	.43

Overall Rank	Topic	ISB*	IL#
25	Diabetes education	Yearly	.43
27	Composting	Yearly	.42
28	Backyard farming	Yearly	.41
29	Telemedicine	Yearly	.39
30	Cryptocurrencies	Yearly	.36
30	Innovative agricultural ideas and startups	Yearly	.36
32	Sewing and Textiles	Yearly	.35
33	Backyard chickens	Yearly	.35
34	Civil discourse - Engaging in public conversations	Yearly	.34
34	Horticulture	Yearly	.34
34	Substance abuse management	Yearly	.34
34	Community coalitions	Yearly	.34
34	Low chemical landscapes	Yearly	.34
39	Remote co-working spaces	Yearly	.33
40	Computer coding	Yearly	.32
40	Urban farming	Yearly	.32
40	Cut flower production	Yearly	.32
43	Beekeeping	Yearly	.31
44	Urban forestry	Never	.28
44	Blockchain technology	Yearly	.28
46	Specialty farming	Never	.26
47	Divorce education	Yearly	.23

Note. *ISB = Mean response for "How often do you look for information on the topic?"
#IL = Interest Level scores (Interpretation in Methodology)

Interests in Topic Areas by Residence Type

Table 2 shows the top 10 topic interests based on resident type. Strengthening family relationships, emergency preparedness, and food storage were of the highest interest to rural residents. Strengthening family relationships and emergency preparedness were of the highest interest to suburban residents. Mental health, emergency preparedness, and strengthening family relationships were of the highest interest to urban residents. Results show individuals searched monthly for information on most topics listed in Table 2.

Table 2. Interest Level and Information-Seeking Behavior by Residence Type

Residence*	Topic	ISB	IL
Rural (n = 118)	Strengthening family relationships	Monthly	.76
	Emergency preparedness	Monthly	.74
	Food storage	Monthly	.72
	Home gardening	Monthly	.68
	Food safety	Yearly	.68
	Healthy couples' relationships	Monthly	.67
	Mental health	Monthly	.66

Residence*	Topic	ISB	IL
	Food preservation (e.g., canning, freeze-drying)	Monthly	.65
	Home water conservation	Yearly	.64
	Nutrition education	Monthly	.63
Suburban (n = 459)	Strengthening family relationships	Monthly	.75
	Emergency preparedness	Monthly	.71
	Mental health	Monthly	.69
	Food storage	Yearly	.68
	Healthy couples' relationships	Monthly	.68
	Home gardening	Monthly	.65
	Food safety	Yearly	.65
	Nutrition education	Monthly	.65
	Financial planning	Monthly	.64
	Food preservation (e.g., canning, freeze-drying)	Yearly	.60
Urban (n = 80)	Mental health	Monthly	.78
	Emergency preparedness	Monthly	.74
	Strengthening family relationships	Monthly	.72
	Food safety	Monthly	.69
	Healthy couples' relationships	Monthly	.66
	Food storage	Monthly	.65
	Nutrition education	Monthly	.65
	Financial planning	Monthly	.62
	Financial literacy	Monthly	.61
	Nature and outdoor education	Monthly	.61

Note. *Residents were asked to describe their current area of residence.

Interests in Topic Areas by Age

Table 3 shows the top 10 topic interests by age group. Mental health and strengthening family relationships were of the highest interest to individuals between the ages of 18–34 and 35–54. Residents over the age of 54 were most interested in emergency preparedness and food storage. While younger residents searched for information on most topics monthly, older residents searched infrequently for information, except for nutrition education. Younger residents also showed higher interest in financial topics compared to middle-aged and older residents, who had a greater interest in home gardening and landscapes.

Table 3. Interest Level and Information-Seeking Behavior by Age Group

Age Group	Topic	ISB	IL
18–34 (n = 225)	Mental health	Monthly	.79
	Strengthening family relationships	Monthly	.79
	Healthy couples' relationships	Monthly	.75
	Emergency preparedness	Monthly	.73
	Food storage	Monthly	.71

Age Group	Topic	ISB	IL
	Financial planning	Monthly	.71
	Nutrition education	Monthly	.68
	Food safety	Monthly	.67
	Financial literacy	Monthly	.66
	Healthy social media use in families	Monthly	.66
35–54 (n = 237)	Strengthening family relationships	Monthly	.80
	Mental health	Monthly	.75
	Emergency preparedness	Monthly	.74
	Healthy couples' relationships	Monthly	.74
	Food storage	Monthly	.71
	Home gardening	Monthly	.69
	Food safety	Yearly	.68
	Nutrition education	Monthly	.67
	Financial planning	Monthly	.67
	Food preservation (e.g., canning, freeze-drying)	Yearly	.65
>54 (n = 203)	Emergency preparedness	Yearly	.68
	Food storage	Yearly	.63
	Strengthening family relationships	Yearly	.62
	Home gardening	Yearly	.62
	Food safety	Yearly	.62
	Home water conservation	Yearly	.62
	Nutrition education	Monthly	.57
	Water-efficient landscapes	Yearly	.55
	Mental health	Yearly	.53
	Healthy couples' relationships	Yearly	.51

Interests in Topic Areas by Age and Residence

Table 4 shows the top 10 interests based on a crosstabulation between age and type of residence. Rural and suburban residents between the ages of 18–34 and 35–54 were most interested in strengthening family relationships, while rural and suburban residents 55 years or older were most interested in emergency preparedness. Urban residents between the ages of 18–34 and 35–54 were most interested in mental health, while urban residents older than 54 years were most interested in emergency preparedness.

Table 4. Top Interest by Age Group and Residence Type

Top 10 Items (Overall)	**Rural** (n = 118)			**Suburban** (n = 459)			**Urban** (n = 80)		
	18–34	35–54	>54	18–34	35–54	>54	18–34	35–54	>54
Strengthening family relationships	**.84**	**.85**	.60	.79	.80	.64	.81	.75	.57
Emergency preparedness	.79	.74	**.70**	.69	.74	**.68**	.80	.75	**.62**

Top 10 Items (Overall)	Rural (*n* = 118)			Suburban (*n* = 459)			Urban (*n* = 80)		
	18–34	35–54	>54	18–34	35–54	>54	18–34	35–54	>54
Mental health	.77	.71	.53	.78	.74	.53	**.85**	**.86**	.54
Food storage	.76	.75	.65	.69	.73	.63	.78	.58	.59
Healthy couples' relationship	.78	.83	.41	.75	.72	.55	.77	.68	.47
Food safety	.65	.74	.63	.65	.67	.63	.82	.65	.57
Home gardening	.72	.73	.60	.63	.70	.63	.59	.59	.56
Nutrition education	.69	.69	.51	.66	.69	.59	.77	.59	.57
Financial planning	.72	.74	.40	.70	.67	.55	.79	.61	.42
Food preservation	.72	.73	.50	.61	.66	.51	.74	.58	.44
n	36	41	41	159	159	141	27	33	20

Note. Bold text indicates the topic of most interest.

Participation Preferences

Table 5 shows residents' participation preferences based on age group and residence. Overall, residents preferred online-only participation or a mix between online and face-to-face programs, with a greater online component. Most rural and suburban residents of all age groups preferred to participate in online courses or workshops only. Urban residents between the ages of 18–34 preferred a hybrid between online and face-to-face learning, with a greater face-to-face component. Older residents (>54 years) were less likely to participate in any educational course.

Table 5. Program Participation Preference by Age and Residence

Participation Preference	Rural (%)			Suburban (%)			Urban (%)		
	18–34	35–54	>54	18–34	35–54	>54	18–34	35–54	>54
Online only	43	39	45	44	43	49	25	30	52
A mix between online and face-to-face, but mostly online	30	39	18	26	35	26	25	42	10
A mix between online and face-to-face, but mostly face-to-face	14	10	13	15	11	14	36	12	10
Face-to-face only	8	10	5	11	6	3	11	6	5
I would not participate in any educational course	5	2	20	4	5	8	4	9	24

With respect to existing Extension clientele (*n* = 71), 37% stated they preferred online-only participation, 38% preferred a mix between online and face-to-face with a greater online component, 21% preferred a mix with a greater face-to-face component, 3% preferred face-to-face only, and only 1% indicated they would not participate in any educational course.

Conclusions and Implications

Results showed the topics of highest interest to Utah residents were strengthening family relationships, emergency preparedness, mental health, food storage, and healthy couples' relationships. Residents' information-seeking behaviors were somewhat consistent with their interests; residents searched most frequently for information on mental health, strengthening family relationships, nutrition education, and healthy couples' relationships. While findings showed differences in program interests by sociodemographic characteristics, topics such as family relationships, emergency preparedness, and mental health had reliable levels of interest across all audiences. Further, results demonstrated a preference for online programming.

This study can be replicated in other Extension systems, and Extension professionals can use the results to plan appealing programs based on residents' preferences. For example, rural, suburban, and urban residents had a high interest in emergency preparedness, frequently sought information on this topic, and preferred online courses. With this information, Extension professionals can be creative with the use of online tools to create asynchronous short videos or interactive content on emergency preparedness tips. These can be updated (as needed) and made available year-round. Additionally, synchronous short sessions can be held on Zoom for question-and-answer and discussion forums. A designated program website can also include all sources of information related to emergency preparedness, with emergency hotlines in each area.

As another example, residents were highly interested and sought frequent information on strengthening family relationships. Extension professionals can plan a mix between online and face-to-face content since this is a preferred way of communication. Online sessions can include self-paced short video clips with tips to strengthen family relationships. These can be posted on the program's website and social media. Additionally, face-to-face sessions can include more in-depth discussions on best practices for dealing with disagreements and conflict.

Given the broad range of programming at Utah State University Extension, there is a need for faculty to make deliberate efforts to identify target segments, attract new audiences, and retain existing audiences. This necessitates understanding community needs and their relationship to residents' preferences and interests. Extension organizations are encouraged to critically analyze residents' needs, interests, information-seeking behaviors, and participation preferences to tailor relevant programs to recruit and retain participants, given changing societal trends. It must also be noted that the results of this study are subject to two major limitations: a convenience sampling strategy was used to gather data, which limits generalizability, and respondents' interests were not examined by income, race, and ethnicity. Future studies are strongly encouraged to consider the preferences, interests, and, most importantly, needs of underserved audiences to enable programmatic recommendations for underserved and non-traditional audiences.

Extension should consider barriers to program participation for different audiences. For example, some segments may lack transportation to attend face-to-face activities, existing work schedules can affect participation preferences, and access to broadband internet can affect online participation. Therefore, Extension is encouraged to assess and address barriers to inform successful participant recruitment strategies. In addition, with a noted preference for online programming, there is a need for future research on maintaining participant engagement in virtual environments. Extension can create professional development opportunities for agents to facilitate effective interactions and retention of audiences in virtual environments. Understanding what topics clientele are interested in, how often they seek information on that topic, how they prefer to consume information, and barriers to engagement in different settings are important to creating appealing, relevant, and engaging programs that solidify Extension's role as a trusted source of information.

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